Author Index

Anand, R., Pulsed field gel electrophoresis: a technique for fractionating large DNA molecules 278
Azen, E. A., Lush, I. E. and Taylor, B. A., Close linkage of mouse genes for salivary proline-rich proteins and taste (letter to the editor) 199

Barbacid, M., Mutagens, oncogenes and cancer 188
Benne, R. and Tabak, H. F., Senescence comes of age (monitor) 147
Bernstein, A., see Dick, J. E. 165
Bertazzoni, U., Scovassi, A. I., Mezzina, M., Sarasin, A., Franchi, E. and Izzo, R., Activity gels for analysing DNA processing enzymes 67
Boeke, J. D., see Fink, G. R. 118
Bonaccorsi, S., see Pimpinelli, S. 17
Borrelli, E., see Sassone-Corsi, P. 215
Bryant, S. V. and Muneoka, K., Views of limb development and regeneration 153
Bulfield, G., Ubiquitous promoter in transgenic mice (monitor) 253
Burks, C., see Foley, B. T. 233
Buttin, G., see Hyrien, O. 275

Carpenter, R., see Coen, E. S. 292
Cavenee, W. K., The genetic basis of neoplasia: the retinoblastoma paradigm (monitor) 299
Chisholm, R. L., Homeoboxes: what do they do? (monitor) 224
Coen, E. S. and Carpenter, R., Transposable elements in *Antirrhinum majus:* generators of genetic diversity 292
Craig, I. W. and Tolley, E., Steroid sulphatase and the conservation of mammalian X chromosomes 201
Cullis, C. A., Phenotypic consequences of environmentally induced changes in plant DNA 307

Daniels, G. R., see Deininger, P. L. 76
Danos, O., see Giri, I. 227
Davies, K. E., An up-to-date gene map (monitor) 253
Dawid, I. B. and Sargent, T. D., Molecular embryology in amphibians: new approaches to old questions 47
Deininger, P. L. and Daniels, G. R., The recent evolution of mammalian repetitive DNA elements 76
Dick, J. E., Magli, M. C., Phillips, R. A. and Bernstein, A., Genetic manipulation of hematopoietic cells with retrovirus vectors 165
Dover, G. A., Molecular drive in multigene families: how biological novelties arise, spread and are assimilated 159
Dover, G. A., How to drive an egg (monitor) 300
Dover, G. A., Genetic errors and gene redundancy (letter to the editor) 172
Dronamraju, K. R., Setting the record straight (letter to the editor) 224
Dronamraju, K. R., Possible worlds: contributions of J. B. S. Haldane to genetics 322
Du Pasquier, L., see Kobel, H. R. 310
Dynan, W. S., Promoters for housekeeping genes (monitor) 196

Echols, H., Bacteriophage λ development: temporal switches and the choice of lysis or lysogeny 26
Estelle, M. A. and Somerville, C. R., The mutants of *Arabidopsis* 89
Evan, G., Growth factors, receptors and oncogenes (monitor) 2

Feiss, M., Terminase and the recognition, cutting and packaging of λ chromosomes 100
Fink, G. R., Boeke, J. D. and Garfinkel, D. J., The mechanism and consequences of retrotransposition 118
Foley, B. T., Nelson, D., Smith, M. T. and Burks, C., Cross sections of the Gen Bank® database 233
Fox, T. D., Nuclear gene products required for translation of specific mitochondrially coded mRNAs in yeast 97
Franchi, E., see Bertazzoni, U. 67
Freeling, M., see Lillis, M. 183

Garfinkel, D. J., see Fink, G. R. 118
Gatti, M., see Pimpinelli, S. 17
Gautier, T., see Imperato-McGinley, J. 130
Giri, I., and Danos O., Papillomavirus genomes: from sequence data to biological properties 227
Golden, J. W., see Haselkorn, R. 255
Goodfellow, P. N., The case of the missing H-Y antigen (monitor) 87
Goridis, C., see Rutishauser, U. 72
Gough, G. and Lane, D., DNA helicase activity of SV40 large T antigen (monitor) 274
Gough, N., Haemopoiesis in Heidelberg (monitor) 197
Grivell, L. A., see Tabak, H. F. 51
Groner, B., The *mas* oncogene (monitor) 250
Grosveld, F., see Kioussis, D. 304

Hanawalt, P. C. and Sarasin, A., Cancer-prone hereditary diseases with DNA processing abnormalities 124
Harper, P. S., The cystic fibrosis gene mapped (monitor) 3
Haselkorn, R., Golden, J. W., Lammers, P. J. and Mulligan, M. E., Developmental rearrangement of cyanobacterial nitrogen-fixation genes 255

Hassold, T. J., Chromosome abnormalities in human reproductive wastage 105
Hastie, N., Mouse genetics at a Swiss monastery (monitor) 249
Hayman, M. J., *erb*-B: growth factor receptor turned oncogene 260
Howe, C. J., Chloroplast recombination (monitor) 34
Hyrien, O. and Buttin, G., Gene amplification in pesticide-resistant insects (monitor) 275

Imperato-McGinley, J. and Gautier, T., Inherited 5α-reductase deficiency in man 130
Inouye, M., see Pines, O. 284
Izzo, R., see Bertazzoni, U. 67

Jaffe, E. and Laird, C., Dosage compensation in *Drosophila* 316

Kioussis, D. and Grosveld, F., Naturally occurring complementary transcripts: do they function as anti-sense RNA? (monitor) 304
Kobel, H. R. and Du Pasquier, L., Genetics of polyploid *Xenopus* 310
Kourilsky, P., Molecular mechanisms for gene conversion in higher cells 60
Kubli, E., Molecular mechanisms of suppression in *Drosophila* 204

Laird, C. see Jaffe, E. 316
Lammers, P. J., see Haselkorn, R. 255
Lane, D., see Gough, G. 274
Lehrach, H., see Poustka, A. 174
Leslie, J. F. and Watt, W. B., Some evolutionary consequences of the molecular recombination process 288
Levinson, A. D., Normal and activated *ras* oncogenes and their encoded products 81
Lillis, M. and Freeling, M., *Mu* transposons in maize 183
Linzer, D., Negative transcriptional regulation of c-*myc* (monitor) 195
Lush, I. E., see Azen, E. A. 199

Magli, M. C., see Dick, J. E. 165
Martinez-Arias, A., A molecular season for descriptive embryology (monitor) 146
Meinhardt, H., The threefold subdivision of segments and the initiation of legs and wings in insects 36
Mezzina, M., see Bertazzoni, U. 67
Mount, D. W., see Ossanna, N. 55
Mulligan, M. E., see Haselkorn, R. 255
Mulligan, R. M. and Walbot, V., Gene expression and recombination in plant mitochondrial genomes 263
Muneoka, K., see Bryant, S. V. 153

Nagley, P., Termination of bacterial chromosomes (monitor) 221
Nasmyth, K., A U-turn in the regulation of transcription? (monitor) 115
Nasrallah, J. B., see Nasrallah, M. E. 239
Nasrallah, M. E. and Nasrallah, J. B., Molecular biology of self-incompatibility in plants 239
Nelson, D., see Foley, B. T. 233
Nusse, R., The activation of cellular oncogenes by retroviral insertion 244

O'Brien, S. J., Molecular genetics in the domestic cat and its relatives 137
O'Hare, K., Genes within genes (monitor) 33
Ohno, S., The total number of genes in the mammalian genome (letter to the editor) 8
Ossanna, N., Peterson, K. R. and Mount, D. W., Genetics of DNA repair in bacteria 55

Parnes, J. R., Structure and function of T lymphocyte differentiation antigens 179
Partridge, L., Genetics of mate choice (monitor) 1
Pays, E., Variability of antigen genes in African trypanosomes 21
Peterson, K. R., see Ossanna, N. 55
Phillips, R. A., see Dick, J. E. 165
Pimpinelli, S., Bonaccorsi, S., Gatti, M. and Sandler, L., The peculiar genetic organization of *Drosophila* heterochromatin 17
Pines, O. and Inouye, M. Antisense RNA regulation in prokaryotes 284
Porteous, D. J., see van Heyningen, V. 4
Porteous, D. J. and van Heyningen, V., Cystic fibrosis: from linked markers to the gene 149
Poustka, A. and Lehrach, H., Jumping libraries and linking libraries: the next generation of molecular tools in mammalian genetics 174

Reanney, D. C., Genetic error and genome design 41
Reanney, D. C. (letter to the editor) 173
Rine, J., Regulation of cell division by peptide hormones of *Saccharomyces cerevisiae* (monitor) 276
Robertson, E. J., Pluripotential stem cell lines as a route into the mouse germ line 9
Rogers, J., Introns between protein domains: selective insertion or frameshifting? (monitor) 223
Rogers, J. H., The mouse *t* complex is composed of two separate inversions (monitor) 145
Rossant, J., Retroviral mosaics: a new approach to cell lineage analysis in the mouse embryo (monitor) 302
Rutishauser, U. and Goridis, C., NCAM: the molecule and its genetics 72

Sandler, L., see Pimpinelli, S. 17
Sarasin, A., see Bertazzoni, U. 67
Sarasin, A., see Hanawalt, P. C. 124
Sargent, T. D., see Dawid, I. B. 47
Sassone-Corsi, P., Mutagenic activity of transforming genes (monitor) 6
Sassone-Corsi, P. and Borrelli, E., Transcriptional regulation by *trans*-acting factors 215
Scovassi, A. I., see Bertazzoni, U. 67
Scriver, C. R., Soundings at the PKU locus (monitor) 251
Smith, M. T., see Foley, B. T. 233
Somerville, C. R., see Estelle, M. A. 89
Stewart, A., Where next for mammalian male-specific (H-Y) antigen(s)? (monitor) 273
Sved, J. A., Limits on the number of loci in the genome (letter to the editor) 8
Syvanen, M., Cross-species gene transfer: a major factor in evolution? 63

Tabak, H. F., see Benne, R. 147
Tabak, H. F. and Grivell, L. A., RNA catalysis in the excision of yeast mitochondrial introns 51
Taylor, B. A., see Azen, E. A. 199
Tolley, E., see Craig, I. W. 201
Tompkins, L., Genetic control of sexual behavior in *Drosophila melanogaster* 14

van Heyningen, V. and Porteous, D. J., Mapping a chromosome to find a gene (monitor) 4
van Heyningen, V., see Porteous, D. J. 149
Verma, I. M., Proto-oncogene *fos*: a multifaceted gene 93

Wagner, M., A consideration of the origin of processed

pseudogenes 134
Walbot, V., see Mulligan, R. M. 263
Watt, W. B., see Leslie, J. F. 288
Weisburger, E. K., Antimutagenesis and anticarcinogenesis: progress without molecular mechanisms (monitor) 59
Willison, K., 't-party' at the Jackson Laboratory (monitor) 305
Witkowski, J., The Elixir of Life 110
Wolf, C. R., Cytochrome P-450s: polymorphic multigene families involved in carcinogen activation 209
Wylie, C. C., Early developmental decisions: a new style comparative approach (monitor) 171

Yamada, T., Control of cell-type generation mediated by growth factor 266

Subject Index

tt = technical tip

5α-reductase deficiency in man 130
abl oncogene 189
Actin genes, sequences in GenBank^{R} database 235
Activity gel analysis 67
Adenovirus enhancer 216
agouti mutation, mouse 249
Agrobacterium tumefaciens, transformation of *Arabidopsis* 90
Alu family 77
Amphibians
  limb development 153
  molecular embryology 47
  polyploidy 310
Anabaena nitrogen fixation genes 255
Androgens 130
Aneuploidy 105
Antheraea polyphemus, chorion genes 300
Anthocyanin synthesis, mutants in *Antirrhinum majus* 292
Anti-mutagenesis 59
Antigenic variation, in African trypanosomes 21
Antirrhinum majus, transposable elements 292
Antisense mRNA 171, 284, 304
Antitermination and suppression in *Drosophila* 206
Arabidopsis 89
Ataxia telangiectasia (AT) 127
Avian erythroblastosis virus (AEV) 261
Axolotl 111

Bacillus subtilis termination of DNA replication 221
Bacteriophage λ
  development 26
  repressor 115
  terminase 100
Base changes in DNA, detection (tt) 254
Behaviour, genetic control in *Drosophila* 14
Bloom's syndrome 128
BluGENE^{TM}, DNA detection (tt) 226
Bombyx mori, chorion genes 300

Caenorhabditis elegans, *Lin-12* mutation 266
cAMP receptor protein (CRP), control by antisense mRNA 284
Cancer and carcinogenesis 59
  erb-B activation 260
  activation of cellular oncogenes by proviral insertion 244
  cytochrome P-450 209
  mutagens and oncogenes 6, 188
  papillomaviruses 227
  ras gene activation 81, 188
  retinoblastoma 129, 299
Cancer-prone hereditary diseases 124
Capped RNA transcripts, synthesis (tt) 254
Cat family genetics 137
cDNA cloning of chimaeric viral–host transcript (tt) 173
Cell lineage establishment in development 171, 302
Cell-type generation 266
Chick limb development 153
Chimaeric (mosaic) mice 9, 302
Chloramphenicol acetyl transferase assay (tt) 254
Chloroplast, recombination 34
Chorion multigene family 300
Chromosome
  abnormalities 105
  banding (tt) 7
  Drosophila heterochromatin 17
  jumping 174
  walking 150, 174
Chromosome-mediated gene transfer 151
Chronic myelogenous leukemia (CML) 188
Ciliated protozoans, genetic code 64
Cockayne's syndrome 129
Codon changes, evolution 64
Collagen gene introns 223
Concerted evolution 161
copia transposable element 204
cos site 103
Cyanobacteria, nitrogen fixation genes 255
Cystic fibrosis 3, 149
Cytochrome oxidase (*cox*) genes, yeast 98
Cytochrome P-450 209
Cytoplasmic male sterility (CMS) 263

Dihydrofolate reductase gene 196
Dihydrotestosterone 130
dilute mutation, mouse 249
DNA helicase activity of SV40 T antigen 274
DNA
  damage by mutagens 59
  detection of single-copy DNA in cell extracts (tt) 88
  packaging 100
  processing abnormalities 124
  processing enzymes, assay 69
  repair 55, 124
  sequencing (tt) 7
  staining with fluorescent dyes (tt) 7
  strand separation (tt) 88
  termination of replication 221
Dosage compensation
  in *Drosophila* 316
  steroid sulphatase 202
Down's syndrome 109
Drosophila
  dosage compensation 316
  Gart gene introns 33
  genetic control of sexual behaviour 14
  heterochromatin 17
  homeotic genes 224
  Krüppel mutation 36, 171
  Notch locus 266
  segmentation genes 36, 145, 224
  suppression 204
  transposable elements 33, 204
Duchenne muscular dystrophy (DMD) 5

Electroblotting (tt) 35
Electroelution from SDS gels (tt) 35
Electrophoresis system for RNA (tt) 254
Embryo transfer, mouse 9
Embryogenesis 171
  amphibians 47
  mouse 9, 302

Embryonal carcinoma (EC) cells 9
Enhancers 115, 215
ENU mutagenesis, mouse 250
Environmentally induced changes in plant DNA 307
Epidermal growth factor (EGF) 2, 266
Epidermal growth factor receptor (EGFR) 260
erb-B oncogene 2, 189, 245, 260
Escherichia coli
antisense mRNA regulation 284
DNA repair 56
repressors 116
sequences in GenBank^R database 236
termination of DNA replication 221
Evolution
cat family (Felidae) 141
chorion genes 300
consequences of molecular recombination processes 288
cross-species 63
genetic error 41, 172
introns 54, 223
mammalian repetitive DNA elements 76
molecular drive 159
polyploidy in *Xenopus* 310
sex 44
sexual selection 1
trypanosome antigen genes 23

Faconi's anemia 128
Felidae, genetics 137
Feline leukemia virus (FeLV) 137
Flax, environmentally induced changes in DNA 307
fms oncogene 3
fos oncogene 2, 6, 93
Fusion protein, dihydrofolate reductase (tt) 200

G proteins, ras protein 82
Gastrulation, differentially expressed genes in *Xenopus* 48
GenBank^R 233
Gender identity 132
Gene amplification in pesticide-resistant insects 275
Gene conversion 60
and evolution 288
and molecular drive 160
repetitive DNA families 80
trypanosome antigen genes 22
Gene mapping 3, 149, 174
cat family 138
human 253
Gene rearrangement, nitrogen fixation genes 255
Gene redundancy 42, 172
Gene therapy 167
Gene transfer
cross-species 63
retrovirus-mediated 167
Genetic code 64
Genetic error 41, 172
Genetic variation, induced by environmental stress in plants 307
Germ line, mouse 9, 303
Glucocorticoid-responsive elements 217
Growth factors
and oncogenes 2
haemopoietic 198
mediation of cell-type generation 266
gypsy transposable element 204

H-Y antigen 87, 273
Haem(at)opoiesis 165, 197
Haldane, J. B. S. 322
Heterochromatin, organization in *Drosophila* 17
Heterocysts 255
Homeotic genes 224
Hormones
control of metamorphosis in frogs 111
yeast mating 276
Housekeeping genes, promoters 196
Huntington's chorea 177
Huxley, Julian 110
Hypoxanthine phosphoribosyl transferase (HPRT) gene 196

Ichthyosis, X-linked 201
Immunoglobulin (Ig) supergene family 181
Immunoglobulin heavy chain enhancer 216
In situ hybridization (tt) 226
Influenza viruses, sequences in GenBank^R database 234
Insertional mutagenesis, mouse 249, 253
int oncogenes 245
Intercalation in limb development 155
Intragenic recombination 288
Introns
evolution 54, 223
and recombination 66
splicing 33, 51
Iodination of proteins (tt) 117

jimpy mutation, mouse 249

Lens regeneration 267
LexA repressor 56
Libraries, jumping and linking 174
Limb deformity (ld) mutation, mouse 253
Limb development and regeneration 153
Lin-12 mutation, *Caenorhabditis elegans* 266
LINE (long interspersed repetitive DNA sequence) 76
LTR (long terminal repeat) 120, 166, 205
Lymphoid cell differentiation 166, 197
Lysogeny, bacteriophage λ 26
Lytic pathway, bacteriophage λ 26

Maize
bronze mutation 186
Mu transposon 183
Major histocompatibility complex (MHC)
cat 139
and polyploidy in *Xenopus* 313
recognition by T cells 180
Mammalian genome, number of loci 8
Mapping, genetic 3, 138, 149, 174, 253
mas oncogene 250
Mating factors, yeast 276
Maturases, in yeast mitochondria 51
Metallothionein enhancer/promoter 217
Mitochondrial DNA
plant 263
and senescence in fungi 147
yeast 51, 97
Mlvi oncogenes 246
Molecular coevolution 163
Molecular drive 159
Morphogen
role in *Drosophila* segmentation 38
role in limb development 153
Mosaicism from post-meiotic segregation 288
Mouse
carcinomas 190, 250
cytochrome P-450 211
embryogenesis 9, 302
haemopoiesis 165, 197
homeobox gene 224
mutations 249, 253
non-complement lethality 171
pluripotential stem cell lines 9
retroviral mosaics 302
retrovirus-mediated gene transfer 165
sex-reversed mutation (*sxr*) 87, 204, 273
steroid sulphatase locus 203
T-cell differentiation antigens 181
t complex 145, 305
taste genes 199
transgenic 9, 253
mRNA
antisense 171, 284, 304
measurement of polyadenylated mRNA (tt) 173
Mu transposon, maize 183
Mullerian inhibiting factor (MIF) 130
Multigene family 172
Cytochrome P-450 209
evolution, molecular drive 159
gene conversion 60
silkmoth eggshell chorions 300
Murine sarcoma virus (MSV) 93
Mutagens 59, 188
myb oncogene 2, 6, 246

myc oncogene 2, 6, 195, 245
Myeloid cell differentiation 166, 197

NCAM (neural cell adhesion molecule) 72
Nephrogenesis 267
nif genes, cyanobacterial 255
Nitrogen fixation, cyanobacteria 255
Non-complement lethality 171
Notch locus, *Drosophila* 266
Nucleic acids
  detection on nylon-based filters (tt) 117
  isolation (tt) 35

Oncogenes 6, 93
  activation by retroviral insertion 244
  in the cat family 139
  and growth factor receptors 2, 260
  (*see also* cancer and carcinogenesis, names of individual oncogenes)

Papillomaviruses 227
Pattern formation in insect segmentation 36
Pesticide resistance and gene amplification in insects 275
PET genes, yeast 98
Phenylalanine hydroxylase (PAH) 251
Phenylketonuria (PKU) 251
Pheromones, in *Drosophila* sexual behaviour 14
Pim oncogene 246
Plasmid ColE1 replication, control by antisense mRNA 284
Plasmid size estimation (tt) 88
Platelet-derived growth factor (PDGF) 2, 6
Podospora anserina, senescence 147
Polar co-ordinate model
  Drosophila leg development 37
  for vertebrate limb development 153
Polyacrylamide gels, fixation to glass plates (tt) 306
Polyoma virus enhancer 216
Polyploidy in *Xenopus* 310
Post-meiotic segregation 288
Processed pseudogenes 134
Promoters 115, 215
  for housekeeping genes 196
Pseudoautosomal region of X and Y chromosomes 203
Pseudogenes 134
Pseudohermaphroditism 130
Pulsed-field gel electrophoresis 150, 174, 278

ras oncogene 81, 188
RecA protein and *rec* genes 55
Recombination 55
  and evolution 288
  and gene conversion 61
  plant mitochondrial genomes 263
  trypanosome antigen genes 22
Redundancy, genetic 42, 172
Repetitive DNA elements
  environmentally induced changes in plants 308
  evolution 76
Reproductive success and mate choice 1
Restriction fragment length polymorphisms (RFLPs)
  in cystic fibrosis 149
  PKU and hyperphenylalaninemia 251
Retinoblastoma 129, 299
Retrotransposition, Ty element 118
Retroviral mosaics, for mouse cell lineage analysis 302
Retroviruses
  activation of cellular oncogenes 244
  of cats 140
  and gene transfer 65
  and processed pseudogenes 134
  and transposable elements 121
  vectors, infection of haemopoietic cells 165, 197
RNA catalysis 51
RNA sequencing ambiguities (tt) 306
Robertson's mutator, maize 184

S-locus specific glycoproteins and incompatibility in plants 239
Saccharomyces cerevisiae (*see* yeast)
Salivary proline-rich proteins and taste 199
Sea urchin, homeobox sequences 224
Segmentation genes, *Drosophila* 36, 146, 224
Segregation distortion 305
Selection, sexual 1
Self-incompatibility in plants 239
Selfish DNA 163
Senescence in fungi 147
Severe combined immunodeficiency (SCID) 170, 198
Sex determination
  human 87, 273
  Drosophila 319
  and polyploidy in *Xenopus* 311
Sex, evolution of 42
Sex-reversed mutation (*sxr*), mouse 87, 204, 273
Sexual differentiation, role of 5α-reductase 130
Silencer 115, 195
SINEs (short interspersed repetitive DNA sequences) 76
Somatic cell hybrids, and human chromosome mapping 4
Somatic reversion, of maize mutants 185
SOS response in bacteria 55
Sp1 transcription factor 196, 215
Splicing of introns 33, 51
Stem cells
  haem(at)opoietic 165, 197
  mouse 9
Steroid sulphatase locus 201
Supernumerary limbs 155
Suppression, in *Drosophila* 204
SV40 enhancer 215
SV40 T antigen
  helicase activity 274
  repressor action 217

T-cell antigen receptor 179
t complex, mouse 145, 305
T lymphocyte differentiation antigens 179
Taste genes in mice 199
TATA box 115, 196, 215
Telomere of trypanosome chromosomes 21
Teratocarcinomas 9
Terminase, bacteriophage 100
Termination of bacterial DNA replication 221
Testosterone 130
Tetrahymena, generation of heterokaryons (tt) 88
TFIIIA gene introns 223
trans-acting transcriptional factors 195, 215
Transcription regulation 115, 195, 215
Transgenic mice 9
  promoters 253
Translation
  in vitro (tt) 226
  regulation of organellar genes 99
Transmission ratio distortion 305
Transposable elements
  in *Antirrhinum majus* 292
  and gene transfer 65
  Mu, in maize 183
  and suppression in *Drosophila* 204
  Ty in yeast 118
Transposon tagging with *Mu* transposon (maize) 187
Trypanosomes, antigenic variation 21
Turner's syndrome 106
Ty element 118

Upstream activation sequences 215

Warts 227
Wilms' tumour, genetic diagnosis 4

X chromosome
  Drosophila dosage compensation 316
  inactivation in mouse 250
  partial inactivation 202
Xenopus
  antisense mRNA 171
  embryogenesis 47
  homeobox sequences 224
  polyploidy 310

Xeroderma pigmentosum (XP) 124

Y chromosome
Drosophila 18
human 87, 273

Yeast
GAL4 gene 116
isolation of DNA (tt) 226
mating factors 276
mitochondrial introns, excision 51
mitochondrial translation 97
Ty transposon 118

Zone of polarizing activity model for limb development 153